



INSTRUMENTS AND DEVICES





This section comprises instruments and devices, which facilitate use of other equipment designed and manufactured by Eridan JSC.

Instruments and devices may be installed in open spaces and enclosed areas of different buildings and structures, as well as on river and sea-going vessels and production facilities, where explosive mixtures of air and combustible gases or vapors may be present.

They may be used at chemical, oil and gas production, oil and gas processing and other plants with explosion hazardous areas.



Ex-TEST

Explosion-Proof Instrument for Functional Testing of Heat Fire Detectors

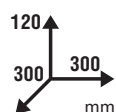
Explosion-proof instrument for functional testing of heat fire detectors Ex-TEST allows checking IP103-2/1-TR, IP101-07e, IP101-07em detectors and their analogs (in terms of sensing element design) without disassembly, right on the installation site as well as the loop and the FACP.

Ex-TEST is used at chemical, oil and gas production, oil and gas processing industry enterprises and in explosion hazardous areas of other production facilities.



1Exs [ib]
IICT3 X

IP54



TECHNICAL DATA:

Enclosure explosion proofness marking	1Exs[ib]IICT3 X
Ingress protection rating	IP54
Operating temperature range, °C	-20...60
Heating temperature range of the MHH, °C	50...162±2
Emergency shutdown temperature, °C	167±3
Supply voltage, V in offline mode with the battery in charge	10,1...14,5 100...240 (battery charge control)
Maximum current consumption of MHH, max., A	4,8
Continuous operation time with battery fully charged, min., h	3, battery charge control
Protection	- MHH cable protection against opening and short-circuiting - Protection from overheating
Instrument max. overall dimensions, mm	300*300*120
MHH cable overall dimensions: MHH cable length, m Max. MHH inside diameter, mm Max. insert inside diameter, mm Max. MHH depth, mm	3...5 (upon request) 16,5 6,0 160,0
Enclosure material	Aluminum alloy
Max. weight, kg	9,0
Lifetime, min, years	10
Warranty period, years	3





IP535-07e-START

Explosion-Proof Remote Start-Up Devices

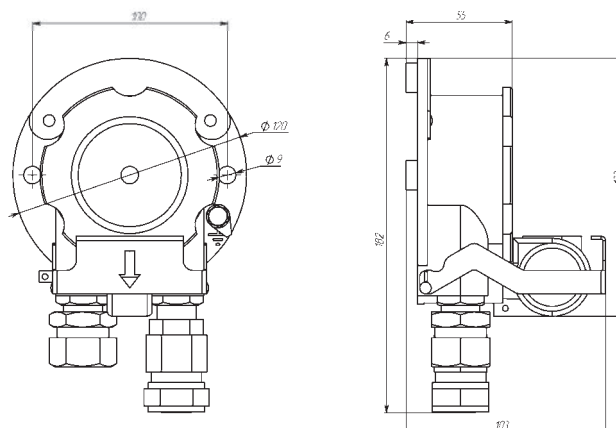
PATENTED

The explosion-proof remote start-up device IP535-07e-START is designed for manual activation of fire fighting systems in explosive areas or areal of general industrial purpose.

It is used at chemical, oil and gas production, oil and gas processing industry enterprises and in explosive areas of other production facilities.



DIMENSIONS



DESIGNATION

LAUNCH OF FIRE FIGHTING	LAUNCH OF SMOKE REMOVAL	EMERGENCY EXIT	EMERGENCY STOP	START
launch of automatic gaseous fire fighting equipment (color - yellow)	launch of smoke removal systems (color - orange)	generation of emergency signals or signals of emergency exit unlocking (color - green)	shutdown of automatic gaseous fire fighting equipment (color - blue)	application of the UDP is defined by the user (color - grey)

DEVICE CLASSES

IP535-07e-START-I1 is designed for manual activation of fire-safety systems; when activated, it provides circuit closing
 IP535-07e-START-I2 is designed for manual activation of fire-safety systems when operating in fire alarm loops; it is activated by fire-alarm circuit opening (series connection) or closing (parallel connection)

1Ex db IIC
T6 Gb

IP66/
IP67






70 μ A



Aluminum



TECHNICAL DATA:

Modification	IP535-07e-START (I1, I2) Explosion-proof remote start-up device	IP535-07ea-START Addressable explosion-proof remote start-up device	IP535-07ea-RS-START Addressable explosion-proof remote start-up device
			
Enclosure explosion proofness marking	1Ex db IIC T6 Gb Ex tb IIIC 85°C Db	1Ex db IIC T6 Gb Ex tb IIIC 85°C Db	1Ex db IIC T6 Gb Ex tb IIIC 85°C Db
Ingress protection rating	IP66/IP67	IP66/IP67	IP66/IP67
Operating temperature range, °C	-60...85	-60...85	-60...85
Maximum switching power, max., W (for I1)	10		
Maximum switching voltage, V (for I1)	60		
Maximum switching current, A (for I1)	0,5		
Maximum current consumption, max., mA (for I2)	0,07	1,0	Standby mode - 5 In activation mode - 10 During polling - 20
Supply voltage, V (for I2)	8...28	15...39	8...28
Driving element	Magnetically-controlled, vibration-resistant, shock-proof	Magnetically-controlled, vibration-resistant, shock-proof	Magnetically-controlled, vibration-resistant, shock-proof
Possibility of connection to addressable loop	Yes (by means of setting the address marks)	Yes (via the Dozor-07a protocol) Maximum number of addressable devices to be connected: 255	Yes (in case of transferring of signal via communication channel RS-485 with Modbus RTU protocol) Maximum number of addressable devices to be connected: 32
Supported protocol		Dozor-07a	Modbus RTU
Max. overall dimensions (without cable glands and bracket), mm	120*135*110	120*135*110	120*135*110
Enclosure material	Aluminum alloy AK 12 ПЧ Vandal-proof design	Aluminum alloy AK 12 ПЧ Vandal-proof design	Aluminum alloy AK 12 ПЧ Vandal-proof design
Light indication	Yes	Yes	Yes
Number of cable glands in the body	2	2	2
Max. cable entry diameter, mm	6...12 (into equipment casing) up to 22 (along the external insulation)	6...12 (into equipment casing) up to 22 (along the external insulation)	6...12 (into equipment casing) up to 22 (along the external insulation)
Detector installation mode	To the surface by means of the mounting hole with the cable glands facing down	To the surface by means of the mounting hole with the cable glands facing down	To the surface by means of the mounting hole with the cable glands facing down
Available packages	Input devices, visor (optional), removable element (optional)	Input devices, visor (optional), removable element (optional)	Input devices, visor (optional), removable element (optional)
Max. weight, kg	1,0	1,0	1,0
Lifetime, min, years	10	10	10
Warranty period, years	5	5	5





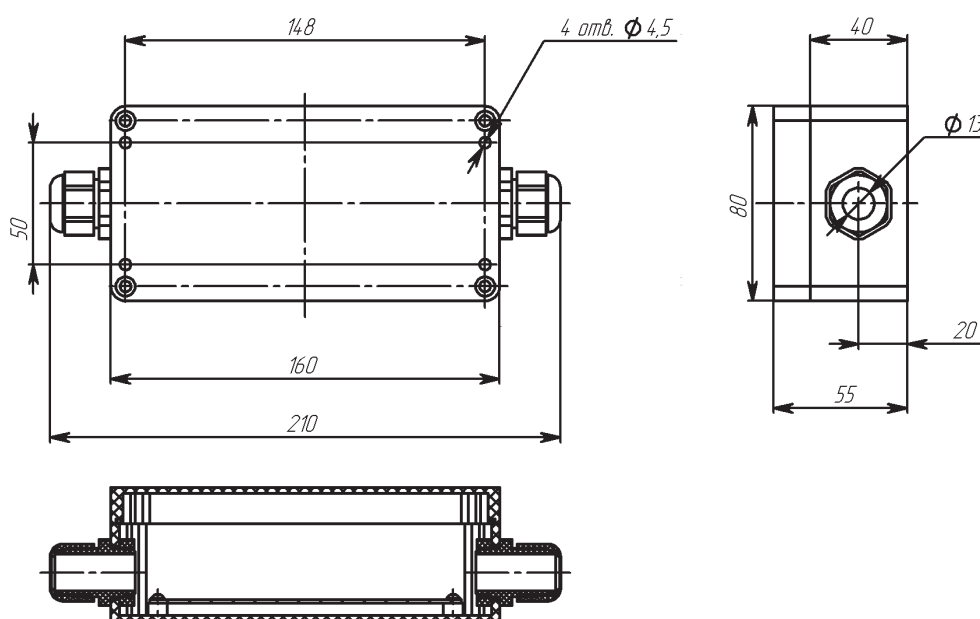
UO

Annunciator Controller

The external annunciator controller UO (UO-RGB) provides possibility to connect the annunciator to the discrete outputs (for example, relays) of fire alarm panels or controllers. Use of the annunciator EKRAN-INFO or EKRAN-INFO-RGB together with the UO (UO-RGB) allows replacing of up to four separate annunciators. Communication with the annunciator is carried out via the RS-485 interface with galvanic separation unit and the communication line controller. The maximum length of the communication line is 1 km. The UO (UO-RGB) is located outside the explosive area.



DIMENSIONS



IP54



-10°+50°C



12-24 V

0,15 A



0,2 kg



55

80

210

mm







10

years



5 years

TECHNICAL DATA:

Modification	UJO EKRAN-INFO annunciator controller in a G258C sealed casing	UJO EKRAN-INFO annunciator controller in an open DIN casing	UJO-RGB EKRAN-INFO-RGB annunciator controller in a G258C sealed casing	UJO-RGB EKRAN-INFO-RGB annunciator controller in an open DIN casing
				
Controlled annunciator type	EKRAN-INFO	EKRAN-INFO	EKRAN-INFO-RGB	EKRAN-INFO-RGB
Number of annunciators to be connected	1	1	1	1
Ingress protection rating	IP54		IP54	
Operating temperature range, °C	-10...50	-10...50	-10...50	-10...50
Supply voltage, V	12-24 VDC	12-24 VDC	12-24 VDC	12-24 VDC
Maximum power consumption, A	0,15	0,15	0,15	0,15
Number of configured discrete outputs (control loops)	4	4	4	4
Interface for communication with the annunciator	RS-485 with galvanic separation unit	RS-485 with galvanic separation unit	Yes (in case of transferring of signal via communication channel RS-485 with Modbus RTU protocol)	Yes (in case of transferring of signal via communication channel RS-485 with Modbus RTU protocol)
Baudrate, baud	9600	9600	9600, 19200, 38400, 57600, 115200 (selection by means of switches)	
Supported protocol			Modbus RTU	Modbus RTU
Max. overall dimensions, mm	210*80*55	70,5*96*60	210*80*55	70,5*96*60
Enclosure material	Plastic	Plastic	Plastic	Plastic
Number of cable glands in the body	2		2	
Max. cable entry diameter, mm	6...12 (into equipment casing)	Connection of wires, cross-section 0.08-1.5 mm ²	6...12 (into equipment casing)	Connection of wires, cross-section 0.08-1.5 mm ²
Installation of the annunciator at site	By means of the mounting hole to the surface	On a 32/35 DIN-rail	By means of the mounting hole to the surface	On a 32/35 DIN-rail
Max. weight, kg	0,2	0,2	0,2	0,2
Lifetime, min. years	10	10	10	10
Warranty period, years	5	5	5	5



PI-1, PI-2

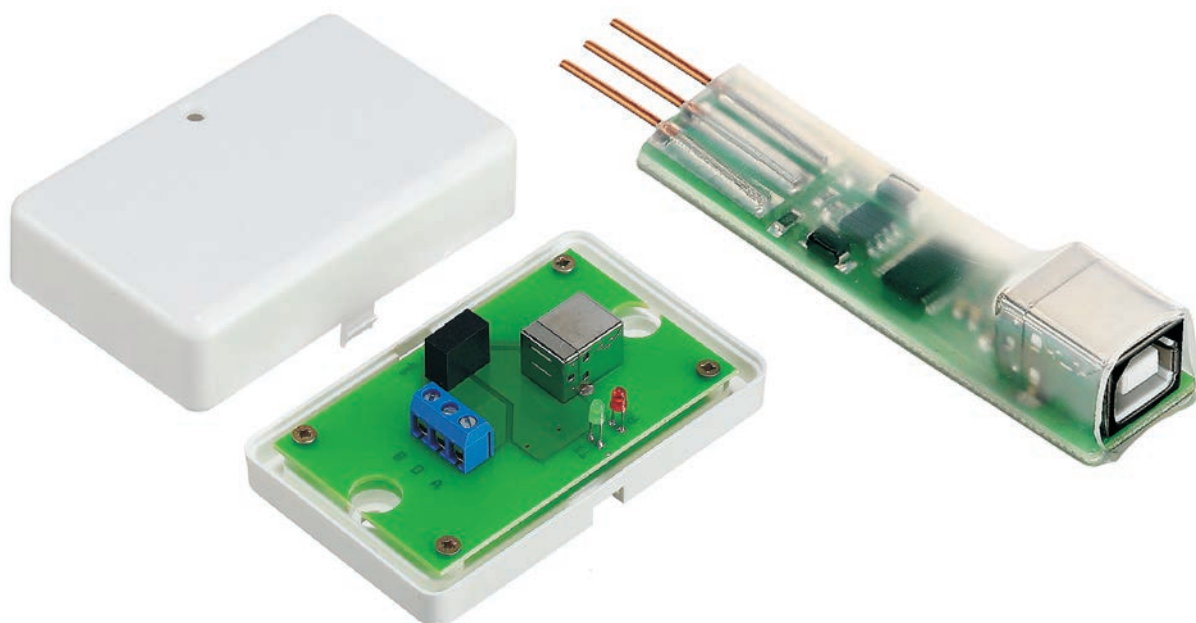
PI-1 and PI-2 USB ↔ RS-485 Interface Converters

USB ↔ RS-485 interface converters are designed for configuring the annunciator EKRAN-INFO and communication with the FACP Dozor-1A with the PC for setting it up and for transfer (reading and recording) of data when working with different applications. The following functions are available for the user:

- Recording of the created configuration into the annunciator EKRAN-INFO or the FACP Dozor-1A
- Reading the existing configurations in the device or the annunciator
- For the FACP Dozor-1A, reading of the event log, monitoring of the system status, firmware upgrading.

PI1: Connection of one or a group of Dozor-1A devices to PC in order to work with the software. The PI1 unit is connected directly to the device's terminals. The communication line between the PI1 and the PC may be several meters long (1-2 m).

The PI2 differs from the PI1 by its galvanic separation, owing to which communication is much more jam-resistant, and which allows laying the lines (RS-485) from the FACP-1A to the PI2 up to several kilometers long.



TECHNICAL DATA:

Modifications	PI-1	PI-2
Max. overall dimensions, mm	70*20*15	90*60*22
Weight, kg	0,2	0,2
Communication line length from the FACP to the device, max., m	2,0	Up to several km
Power supply	From USB port	
Maximum current consumption, mA	80	
Levels and output capacity of the RS-485 line	USB standard	
Lifetime, min, years	10	
Warranty period, years	5	

80 mA





TEST LANTERNS

Explosion-proof test lanterns for checking of IPP-07e Gelios series flame detectors

The test lantern allows checking the IPP-07e Gelios series flame detectors and their analogs without disassembly, at the installation site as well as the loop and the FACP. It is used at chemical, oil and gas production, oil and gas processing industry enterprises and in explosion hazardous areas of other production facilities.



TECHNICAL DATA:

Designation	Explosion-proof test set No. 1 and No. 2	Test lantern Tulpan TF-2Ex
For detector checking	IPP-07e-330-1/2 Gelios 2 IR: - I1 - Explosion-proof test set No. 1 - I2, I3 - Explosion-proof test set No. 2	- IPP-07ea-RS-330-1 Gelios 3 IR - IPP-07ea-RS-329/330-1 Gelios IR/UV
Enclosure explosion proofness marking	1Ex d IIB T4 Gb X	1Ex d IIB T4 Gb X
Ingress protection rating	IP65	IP65
Operating temperature, °C	0...55	0...55
Operating range of coverage, m	3	4
Min. continuous operation time at an ambient temperature of 0°C, h	0,5	0,5
Max. overall dimensions, mm	89*165*96	89*165*96
Enclosure material	Aluminum	Aluminum
Supply package	The product is designed for functional checking of the flame detector in explosive and non-explosive areas. The product mimics the electromagnetic emission of flame. Supply package: - Test lantern - Hollow head screw hex wrench 3 mm and 0.89 mm - AC/DC power adapter, 12 V, 0.3 A - Optical attachment - Replacement lamp	The product is designed for functional checking of the flame detector in explosive and non-explosive areas. The product mimics the electromagnetic emission of flame. Supply package: - Test lantern - Hollow head screw hex wrench 3 mm and 0.89 mm - AC/DC power adapter, 12 V, 0.3 A
Weight without batteries, max., kg	1,2	1,2
Lifetime, min., years	10	10
Warranty period, years	2	2
Certificates available	- Certificate of compliance No. C-RU. ПБ34. Б.01828 (No. 0001265) - Certificate of compliance No. TC RU C-RU.AA87. B.00217 series RU No. 0406128	- Certificate of compliance No. C-RU. ПБ34. Б.01828 (No. 0001265) - Certificate of compliance No. TC RU C-RU.AA87. B.00217 series RU No. 0406128